Filing Date: December 18, 2001 Title: SYSTEM AND METHOD FOR DETECTION ENHANCEMENT PROGRAMMING

REMARKS

This responds to the Office Action dated on January 8, 2008.

Claims 14, 15, 18-21, 23, 25-29, 31 and 33 are amended, no claims are canceled, and no claims are added; thus, claims 14-46 remain pending in this application.

Applicant amended the claims to further clarify the language recited in the claims. No new matter is added, as the amendments are supported by the specification. For example, the amendments clarify that the pulse generator is programmed with detection enhancement(s), which are used by the pulse generator to detect a clinical rhythm. Applicant respectfully requests consideration of the amended claims.

§102 Rejection of the Claims

Claims 14-16 were rejected under 35 U.S.C. § 102(b) for anticipation by Snell (U.S. Patent No. 5,716,382). Applicant respectfully traverses the rejection and submits the arguments of Applicant's response filed October 30, 2007 remain pertinent.

For example, Applicant is unable to find in Snell, among other things, detection enhancements that are programmed into a pulse generator and are used by the pulse generator to detect a clinical rhythm. Snell refers to therapy decisions, not detection.

Applicant respectfully requests the Office's assistance in furthering the prosecution of this matter to finality. Should the Office choose to maintain the rejection using Snell, Applicant requests the Office to clearly identify the "clinical rhythm" that is selected by the user, and the detection enhancements used by the implanted device to detect the clinical rhythm.

Snell

Snell guides physicians / medical technicians to program parameters (e.g. Abstract). FIGS. 5-6 are identified as a decision tree that can be used as a rule set for reaching a therapy recommendation (col. 4 lines 55-59). The decision tree presents questions that the physician answers, uses the answers to present more questions, etc. to present a programming recommendation (e.g. pacing mode recommendation) to the physician. With reference to FIGS. 5-6, it appears that the recommendations relate to pacing mode (e.g. DDIR, AAIR, DDD, AAI, DDDR, etc.) to be programmed.

Item 5 in FIG. 5 asks the question "Is there evidence of atrial fibrillation?" This is part of the decision tree to recommend a therapy, and does not illustrate a selected clinical rhythm that makes detection enhancements available for selection by the user. It appears that the physician can answer none or chronic or intermittent. (Col. 24 lines 65-66). If the physician answers that there is evidence of intermittent AF, item 7 in FIG. 6 asks when the pacemaker is required (for the intermittent AF), and it appears that the physician can answer 1. during atrial fib., 2. immediately after conversion. 3. during sinus rate due to marked bradycardia. The questions continue until the decision tree recommends a pacing mode. The physician's answers are not rules used by an implanted device for detecting a clinical rhythm.

The question of item 7 and answers are guidance for physicians and medical technicians in programming parameters (Abstract; col. 3 lines 42-44 (the rule engine engages an operator in an interactive question and answer session (according to rules of a selected rule set) and displays an operating condition as a programming recommendation based on the information from the operator)). The rules sets are based on the type of implantable cardiac stimulating device to be programmed. (col. 3 lines 35-40). These rules relate to the specific decision tree for a specific device, not detecting a clinical rhythm.

Snell refers to therapy decisions, not detection. Applicant submits the rejection fails to show the Snell reference specifically teaches or suggests all the elements.

Claims 14-16

With respect to independent claim 14, Applicant is unable to find, among other things, in the cited portions of the reference, a programmer for a user to program a pulse generator with detection enhancements for use by the pulse generator to detect a clinical rhythm and selectively apply therapy for the detected clinical rhythm, as recited in the claim. Applicant is unable to find, in the cited portions of the reference, a programmer that includes a first module for receiving a user-provided selection of a clinical rhythm, where the programmer is programmed to associate the clinical rhythm with available detection enhancements and, based on the selected clinical rhythm, to make the available detection enhancements available for selection by the user to add specificity for the pulse generator to determine when to deliver shock therapy for the user-provided selection of the clinical rhythm, as recited in the claim. Applicant is unable to find a

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first module preprogrammed to provide a preprogrammed selection of at least one detection enhancement from the available detection enhancements that are associated with the user-provided selection of the clinical rhythm, as recited in the claim. Furthermore, Applicant is unable to find, among other things, a second module for receiving a user-provided selection to modify the preprogrammed selection of the at least one detection enhancement provided by the preprogrammed first module to at least one other detection enhancement from the available detection enhancements that are associated with the user-provided selection of the clinical rhythm, as recited in the claim. Additionally, Applicant is unable to find, among other things in the reference, a programmer that is adapted to program the pulse generator to detect the clinical rhythm using the preprogrammed selection of at least detection enhancement as a default, and with the user-provided detection enhancement selection, as recited in the claim.

Applicant respectfully requests withdrawal of the rejection, and reconsideration and allowance of claim 14. Claims 15 and 16 depend on independent claim 14. These dependent claims recite additional features, and are believed to be allowable at least for the reasons provided with respect to claim 14.

\$102/\$103 Rejections of the Claims

Claims 17-21, 30-34, 37 and 39 were rejected under 35 U.S.C. § 102(b)as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Snell (U.S. Patent No. 5,716,382).

Claim 17

Claim 17 depends on independent claim 14 and is believed to be in a condition for allowance at least for the reasons provided with respect to independent claim 14. Further, Applicant is unable to find a number of layered screen displays where a first screen provides a capability to activate at least one detection enhancement seeded with at least one parameter, and a second screen provides a capability to change the at least one parameter for the at least one detection enhancement. Applicant respectfully requests withdrawal of the rejection and reconsideration and allowance of claim 17.

Claim 18

With respect to independent claim 18, Applicant is unable to find in Snell, among other things, a programmer comprising a selection module for receiving a selection of a clinical rhythm from a user, a parameter modification module, and a communication module, as recited in the claim. Applicant is unable to find a programmer that is programmed to associate the clinical rhythm with available detection enhancements, where the available detection enhancements are sets of rules used by a pulse generator to determine when the pulse generator is to deliver shock therapy and each detection enhancement includes at least one parameter, where the selection module is adapted to respond to the selection of the clinical rhythm by the user to make the available detection enhancements available for selection by the user for use by the pulse generator to determine when to deliver shock therapy for the selected clinical rhythm, where the selection module includes artificial intelligence adapted to automatically select a detection enhancement from the available detection enhancements, and automatically provide a setting for the at least one parameter for the automatically selected detection enhancement, and where the selection module is adapted to receive a user-provided selection of at least one other detection enhancement from the available detection enhancements in place of the detection enhancement automatically selected by artificial intelligence, as recited in the claim. Additionally, Applicant is unable to find a parameter modification module for receiving a user input to change the automatically-provided setting for the at least one parameter of the selected detected enhancement. Applicant is unable find, in the cited portions of the reference, a communication module for communicating with a pulse generator to program the pulse generator with the automatically selected detection enhancement or the user-provided selection of at least one of the detection enhancements for use by the pulse generator to detect the clinical rhythm and the associated at least one detection enhancement.

Applicant respectfully requests withdrawal of the rejection, and reconsideration and allowance of claim 18.

Claims 19-21 and 30

Claims 19-21 and 30 depend, either directly or indirectly, on independent claim 18.

These dependent claims recite additional features, and are believed to be allowable at least for the reasons provided with respect to claim 18.

Claim 31

With respect to independent claim 31, Applicant is unable to find in Snell, among other things, a programmer for a user to program a pulse generator with detection enhancements for use by the pulse generator to detect a clinical rhythm and apply therapy for the detected clinical rhythm, as recited in the claim. Applicant is unable to find control logic for programming the pulse generator using the communications module, where the control logic is adapted to program the pulse generator to detect and provide therapy for at least one clinical rhythm, to associate the clinical rhythm with available detection enhancements, to program the pulse generator with at least one selected detection enhancement from the available detection enhancements associated with the at least one clinical rhythm, and to program the pulse generator with at least one parameter for the at least one selected detection enhancement. Applicant is unable to find, in the cited portions of the reference, a display connected to the control logic to provide a number of screen displays used by the user to select the at least one clinical rhythm and modify the selection of the at least one detection enhancement from at least one preprogrammed detection enhancement to at least one other detection enhancement from the available detection enhancement sassociated with the at least one clinical rhythm, as recited in the claim.

Applicant respectfully requests withdrawal of the rejection, and reconsideration and allowance of claim 31.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111 Serial Number: 10/025,958 Filing Date: December 18, 2001

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Claims 32-34, 37 and 39

Claims 32-34, 37 and 39 depend, either directly or indirectly, on independent claim 31. These dependent claims recite additional features, and are believed to be allowable at least for the reasons provided with respect to claim 31. Additionally, with respect to claim 32, Applicant is unable to find, among other things, in the cited portions of Snell, a programmer where the at least one selected detection enhancement is automatically seeded with a value for the at least one parameter, and the number of screen displays are used by the user to change the value for the at least one parameter.

Claims 22-23 and 38

Claims 22, 23 and 38 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Snell (U.S. Patent No. 5,716,382) as applied to the claims above.

Claims 22 and 23 are dependent upon independent claim 18. Claim 38 is dependent upon independent claim 31. These dependent claims recite additional features, and are believed to be allowable at least for the reasons provided with respect to independent claims 18 and 31.

Double Patenting Rejection

Claims 14-23 and 30-40 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of co-pending Application No. 11/369,142 and over claims 1-27 of Application No. 11/379,742. Claims 14-23, 30-34 and 37-39 were rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 6,493,579. Claims 14-23, 30-34 and 37-39 were rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 7 and 16 of U.S. Patent No. 6,522,925.

Applicant will appropriately address the rejections, including any provisional rejections, when the claims of this application are otherwise found to be in condition for allowance.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6960 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic

Signature

Name